

C/ Incl
43. (Amended) The semiconductor device according to claim 40, wherein said first insulating layer comprises an organic-based resin material predominantly selected from the group consisting of polyimide, polyimide-amide, polyamide, acrylics, and BCB (benzocyclobutane).

REMARKS

In the Final Rejection, the Examiner has a number of objections and rejections of the claims. Applicants will address each in the order in which they appear in the Final Rejection.

1. Claim Objections

The Examiner objects to informalities in Claims 41 and 42 and in particular, requests that “conductive” be changed to -- wiring -- . Applicants have now done so and request that this objection be withdrawn.

2. Claim Rejections - 35 USC §112

The Examiner also rejects Claim 43 under 35 USC §112 as being indefinite. In particular, the Examiner states that “organic material” in Claim 43 lacks antecedent basis. Applicants have now amended Claim 43 to change “organic material is” to -- first insulating layer comprises -- . This should resolve the Examiner’s rejection regarding lack of antecedent basis, and therefore, it is requested that this rejection be withdrawn.

Claim Rejections - 35 USC §102

3. Rejection Under §102(e) Over Zhang et al.

The Examiner further rejects Claims 40, 44 and 45 under 35 USC §102(e) as being anticipated by Zhang et al. This rejection is respectfully traversed.

In the rejection, the Examiner alleges that Zhang discloses a second wiring layer (311) connected to the semiconductor layer through a contact hole in a first insulating layer (314) and especially cites Figs. 1E and 3B in support thereof. Applicants respectfully disagree with this interpretation of Zhang.

Fig. 3B, for example, of Zhang discloses layer 311 (the alleged second wiring) connected to layer 310 (the alleged first wiring) through layer 315 (a second insulating layer). Layer 310 is connected to the TFT through a contact hole in the first insulating layer. It does not disclose layer 311 connected to the TFT through a contact hole in layer 315.

This is in contrast to, for example, Fig. 3C of the present application wherein a first wiring 112 is formed over a first insulating film 111, and a second wiring 114 is formed over the first wiring 112 and is connected to the TFT through a contact hole in first insulating film 111.

Hence, independent Claim 40 and those claims dependent thereon, which require "said second wiring is connected to said semiconductor layer through a contact hole provided in said first insulating film" are not disclosed or suggested by Zhang but are patentable thereover. Accordingly, it is requested that this rejection be withdrawn.

4. Rejection Under §102(a) Over Yoon

The Examiner further rejects Claim 40 under 35 USC §102(a) as being anticipated by Yoon. This rejection is also respectfully traversed.



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The Examiner alleges that Yoon discloses a pixel electrode 118 formed on a second insulating film. Yoon, however, defines 118 as a bit line (see e.g. col. 3, ln. 47). There also appears to be nothing in Yoon defining a pixel electrode. Hence, Yoon does not disclose or suggest the semiconductor device of Claim 40 which requires a pixel electrode. Accordingly, it is requested that this rejection be withdrawn.

Claim Rejections - 35 USC §103

5. Rejection Under §103 Over Yoon In View Of Yamazaki

The Examiner further rejects Claims 1-12, 19-24, 28-39 and 41-45 under 35 USC §103 as being unpatentable over Yoon in view of Yamazaki. This rejection is also respectfully traversed.

As explained above and contrary to the Examiner's assertion, 118 of Yoon is described as a bit line, not a pixel electrode. Further, there is no pixel electrode defined in Yoon.

Yamazaki discloses a pixel electrode 121 directly connected to drain region 111 (see Fig. 2B). It does not disclose a pixel electrode connected to a second metallic layer through a contact hole in a second insulating film, as recited in independent Claims 1, 7 (and similar language in independent Claims 19, 28 34).

Hence, even if these references are somehow combined, the combination still fails to disclose or suggest the structure of the independent claims, or those claims dependent thereon, of the present application. Therefore, it is requested that this rejection be withdrawn.

6. Rejection Under §103 Over Zhang et al. In View Of Yamazaki

The Examiner further rejects Claims 1-12, 19-24, 28-33 and 41-43 under 35 USC §103 as being unpatentable over Zhang et al. in view of Yamazaki. This rejection is also respectfully traversed.

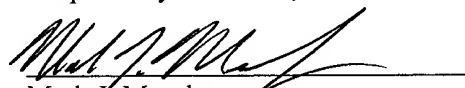
As explained above, Zhang does not disclose or suggest a second metallic layer connected to a conductive layer at the bottom of a contact hole, as recited in independent Claim 1 (and similarly in the other independent claims). Yamazaki also does not appear to disclose such a structure. Hence, neither of these references disclose or suggest the claimed invention, and it is requested that the rejection be withdrawn.

For at least the above-stated reasons, the device of the claims of the present application is not disclosed or suggested by the cited references, and the application is now in a condition for allowance. Therefore, it is requested that the application now be allowed.

Applicants do not believe that any further fee is due for this amendment. Please charge our Deposit Account No. 50-1039 for any deficiency.

Favorable reconsideration is earnestly solicited.

Respectfully submitted,


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Marked up copy of the claims as amended:

IN THE CLAIMS:

Please amend the claims as follows:

41. (Amended) The semiconductor device according to claim 40, wherein said first [conductive layer] wiring is selected from the group consisting of aluminum and a material predominantly composed of aluminum.

42. (Amended) The semiconductor device according to claim 40, wherein said second [conductive layer] wiring is selected from the group consisting of titanium and a material predominantly composed of titanium.

43. (Amended) The semiconductor device according to claim 40, wherein said [organic material is] first insulating layer comprises an organic-based resin material predominantly selected from the group consisting of polyimide, polyimide-amide, polyamide, acrylics, and BCB (benzocyclobutane).